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**Opening Remarks**

**Regional Cooperative Agreement  
for Research, Development and Training  
Related to Nuclear Science and Technology  
For Asia and the Pacific**

**Friday, 22 September 2023, 9:00 AM  
*Conference Room 3, C Building***

Excellencies,  
Ladies and Gentlemen,

I would like to join Ambassador Biggs and my colleague Hua Liu in welcoming you today. The Asia Pacific region is renowned for innovation and a commitment to progress. It is a leader in South-South cooperation to advance sustainable development both within your region and beyond.

For over 50 years the IAEA has been your reliable partner in developing practical applications from nuclear sciences and technologies to help you meet your development needs.

Working together with you, we are making strides regionally and globally to increase food and water security, protect human health from disease and pandemics, and tackle the impacts of climate change and pollution.

The IAEA's 12 laboratories in Vienna, Seibersdorf and Monaco develop nuclear technologies and techniques, tailor them to the specific needs of Member States through coordinated research, then provide scientific expertise to support their implementation through our technical cooperation programme. Our laboratories also provide training and capacity building to help ensure that technical assistance is sustainable.

Allow me to highlight some recent achievements in the Asia Pacific region.

First, **food security**.

The Asia Pacific region is a leader in using nuclear techniques to improve food crops to increase their productivity, nutrition and resilience to climate change. Almost two-thirds of submissions to the FAO/IAEA database of new varieties come from your region.

Bangladesh, China, India, Japan and Pakistan continue to lead in the release of improved varieties of grains, legumes and other food crops that were developed using nuclear techniques to speed up the natural selection process.

This approach is a key element of the new Atoms4Food initiative just announced by the IAEA and the FAO. Atoms4Food takes a

comprehensive approach to increasing food security worldwide, with nuclear technologies as drivers of transformation in crop and livestock breeding, soil and water management, nutrition and food safety.

### Second, **water security**.

Many Asian Pacific countries have joined the IAEA Global Water Analysis Laboratory Network, GloWAL, which was launched at the 2023 UN Water Summit.

The GloWAL Network will empower countries to independently generate their own water data to inform decision-making and to build up national and regional capacities for sustainable water resources management. It will also foster North-South and South-South cooperation. Two Asia Pacific regional GloWAL projects are already underway to develop capacities and enhance regional collaboration and standardization in water monitoring.

### Third, **ocean health**.

The IAEA uses nuclear and isotopic techniques to gain a better understanding of how CO<sub>2</sub> emissions, climate change and pollution are affecting marine and coastal environments, and to help countries manage the impacts.

Just to mention one example, ocean acidification resulting from increasing CO<sub>2</sub> emissions threatens marine life, ecosystem health and local economies that depend on the ocean.

Since 2012, the IAEA Ocean Acidification International Coordination Centre has trained over 170 young scientists from more than 20 Asian-Pacific countries, and created regional hubs to foster collaboration in tackling this shared challenge in South Asia, the Western Pacific and the Pacific Islands and Territories.

Allow me now to turn to the Agency's **flagship initiatives**: ZODIAC, Rays of Hope and NUTEC Plastics.

The Asia Pacific region is a leader in the Zoonotic Diseases Integrated Action, or **ZODIAC**, project. So far, 34 Asian-Pacific States have appointed ZODIAC national coordinators and 25 have designated ZODIAC national laboratories. This year, the Republic of Korea hosted the first regional training course to introduce standard operating procedures for ZODIAC national labs. The Asia Pacific region is the first in the world to work on nuclear techniques for environmental sampling to identify and characterize zoonotic pathogens, with research institutions in Cambodia, Indonesia, Korea, Mongolia, Nepal, Thailand and Viet Nam taking part.

Your region also plays a role in the **Rays of Hope** initiative to improve cancer care and increase access to medical imaging and radiotherapy where it is most needed. Cancer facilities in several Asian-Pacific countries have applied to be Rays of Hope Anchor Centres to expand regional expertise and capacities in medical imaging and radiotherapy through training and support for cancer centers in neighbouring countries.

The Asia Pacific region is also a leader in the **NUTEC Plastics** initiative, which uses nuclear techniques to tackle plastic pollution by improving recycling processes and monitoring microplastic pollution in the ocean.

Indonesia, Malaysia, the Philippines and Thailand host four of NUTEC's eight pilot projects to recycle plastic waste into quality industrial products.

Asian-Pacific countries are also participating in coordinated research projects to develop biodegradable, bio-based plastics using radiation to replace single-use, petroleum-based plastics.

Downstream, Asian-Pacific countries are working with NUTEC to develop standard regional protocols for monitoring microplastics in the ocean, helping to create a global marine monitoring network.

Excellencies,

As you can see, the IAEA's research and scientific expertise result in practical applications with a direct impact on people's everyday lives, and on the health of our planet.

You can count on us to continue to deliver concrete projects to help you address your national and regional sustainable development needs.

Thank you.